Archives of Virology

ntinuation of
chiv für die gesamte Virusforschung

ted by
Norrby, Stockholm
P. Rowe, Bethesda, Md.
Scholtissek, Giessen
A. J. Tyrrell, Harrow
ilček, New York, N.Y.

47, 1975

inger-Verlag
n New York

Archives of Virology

Continuation of

Archiv für die gesamte Virusforschung

Editorial Advisory Board

V. H. Bonifas, Lausanne
J. Casals, New Haven, Conn.
H. Hanafusa, New York, N.Y.
W.K.Joklik, Durham, N.C.
M. Kitaoka, Tokyo
K. Maramorosch, New Brunswick, N.J.
M. Matumoto, Tokyo
M. Mussgay, Tübingen
W.Plowright, London
F. Steck, Bern
J. H. Subak-Sharpe, Glasgow
H. M. Temin, Madison, Wis.
J. D. Verlinde, Leiden
A. P. Waterson, London
R. Weil, Genève
K. E. Weiss, Onderstepoort
H. A. Wenner, Kansas City, Mo.
V. M. Zhdanov, Moscow

Editorial Assistant: F. Heinz, Wien

The exclusive copyright for all languages and countries, including the right for photomechanical and any other reproductions including microform is transferred to the publisher.

Alle Rechte, einschließlich das der Übersetzung in fremde Sprachen und das der photomechanischen Wiedergabe oder einer sonstigen Vervielfältigung, auch in Mikroform, vorbehalten.

© 1975 by Springer-Verlag / Wien

Contents: Vol. 47

No. 1

Editorial 1

Falkler, W. A., Jr., Diwan, A. R., Halstead, S. B.: A Lipid Inhibitor of Dengue Virus in Human Colostrum and Milk; with a Note on the Absence of Anti-Dengue Secretory Antibody 3

Griffith, M. M., Gauntt, C. J.: Rhinovirus Type 14 RNA Polymerase Complexes 11

Lubiniecki, A. S.: Replication of Eastern Equine Encephalitis Viruses (New Jersey and Louisiana Strains and the Ets-4 Mutant) in Rabbit Kidney Cells 21

Yoshino, K., Kishie, Taka, Hashimoto, Mitsue, Yanagi, K.: Effect of Alkaline Maintenance Medium upon the Growth of Rabies Virus in Chick Embryo Cells 31

Jung, M., Krech, U., Price, P. C., Pyndiah, M. N.: Evidence of Chronic Persistent Infections with Polyomaviruses (BK Type) in Renal Transplant Recipients 39

Bahnemann, H. G.: Binary Ethylenimine as an Inactivant for Foot-and-Mouth Disease Virus and Its Application for Vaccine Production. 47

Wyler, R., Wiesendanger, W.: The Enhancing Effect of Copper, Nickel, and Cobalt Ions on Plaque Formation by Semliki Forest Virus (SFV) in Chicken Embryo Fibroblasts 57

Kurogi, H., Inaba, Y., Goto, Y., Miura, Y., Takahashi, H., Sato, K., Omori, T., Matumoto, M.: Serologic Evidence for Etiologic Role of Akabane Virus in Epizootic Abortion-Arthrogryposis-Hydranencephaly in Cattle in Japan, 1972—1974 71

Brief Report

Nishimura, C., Tobe, T.: Antigenic Specificity of S.M.O.N. Virus by Indirect Immuno-Fluorescent Test 85

Announcement 88

No. 2

Chernos, V. I., Vasilieva, N. N., Antonova, T. P., Surgay, V. V.: Study of the Antigenic and Immunogenic Properties of Neurovaccinia Virus TS Mutants 89

Newlin, G. E., Bussell, R. H.: Characterization of Inactivation of Myxoviruses and Paramyxoviruses by Hydroxylamine, N-Methylhydroxylamine and O-Methylhydroxylamine. 97

Alekberova, Z. S., Parfanovich, M. I., Nasonova, V. A., Zhdanov, V. M.: Molecular Pathogenesis of Systemic Lupus Erythematosus 109

Brown, A., Officer, J. E.: An Attenuated Variant of Eastern Encephalitis Virus: Biological Properties and Protection Induced in Mice 123

Richard-Molard, Christine: Isolement de lignées cellulaires de *Drosophila melanogaster* de différents genotypes et étude de la multiplication de deux variants du rhabdovirus sigma dans ces lignées 139
Isolation of *Drosophila melanogaster* Cell Lines of Different Genotypes and Study of Multiplication of Two Variants of Sigma Rhabdovirus in Those Lines

Sklyanskaya, Elena I., Kaverin, N. V., Gribkova, Natalia V., Tsvetkova, Inna V., Lipkind, M. A.: Strain-Specific Degradation of a Viral Glycoprotein in Newcastle Disease Virus-Infected Cells 147

Ruben, F. L., Potter, C. W., Stuart-Harris, C. H.: Humoral and Secretory Antibody Responses to Immunization with Low and High Dosage Split Influenza Virus Vaccine 157

Love, Daria N., Donaldson-Wood, C.: Replication of a Strain of Feline Calicivirus in Organ Culture 167

Brief Reports

Zalan, E., Wilson, C., Freitag, R.: The Role of Hemagglutinin in the Inhibition of Neuraminidase Activity of Influenza Virus by Concanavalin A 177

Zylber-Katz, Ester, Weisman, Pnina: Effects on Host Cell Polyribosomes Following Infection with Frog Virus 3 at a Non-Permissive Temperature . . 181

Sutmoller, P., McVicar, J. W.: The Influence of Age of Cell Cultures on the Production of Foot-and-Mouth Disease Antigen 187

No. 3

Barinsky, I. F., Dementiev, I. V., Shvetsova, T. P., Ugryumov, E. P., Ryabova, M. V., Bugbee, S. J., Sutnick, A. I., Millman, I., Blumberg, B. S.: Investigation of the Nature of Australia Antigen. I: The Absence of Biological Activity of Australia Antigen in Human Blood Leukocyte Culture 193

Loesch, W. T., Jr., Arlinghaus, R. B.: Stable Polypeptides Associated with the 250 S Mengovirus-Induced RNA Polymerase Structure 201

Kos, Kathleen A., Shapiro, D., Vaituzis, Z., Russell, Ph. K.: Viral Polypeptide Composition of Japanese Encephalitis Virus-Infected Cell Membranes 217

Wittmann, G., Dietzschold, B., Bauer, K.: Some Investigations on the Adjuvant Mechanism of DEAE Dextran 225

Smith, M. H., Frey, M. L., Dierks, R. E.: Isolation, Characterization, and Pathogenicity Studies of a Bovine Respiratory Syncytial Virus 237

Lomniczi, B.: Thermostability of Newcastle Disease Virus Strains of Different Virulence 249

Kutinová, L.: Growth of SV40, Adeno 7 and SV40-Adeno 7 Viruses in Monkey and Human Cells at 29° and 37° C 257

Haller, O., Bucher-Nurminen, A., Lindenmann, J.: Early Events in Myxovirus Replication: Immunofluorescent Spots 269

Watkins, Hilary, Reeve, P., Alexander, D. J.: The Ribonucleic Acid of Infectious Bronchitis Virus 279

Brief Reports

Greig, A.: The Use of a Microtitration Technique for the Routine Assay of African Swine Fever Virus 287

Schmidt, W. A. K., Brade, H., Klein, Magdalena: Die Persistenz latexagglutinationshemmender Antikörper in Kaninchen nach Applikation von Poliomyelitis-, Coxsackie-, Echo- und Enzephalomyokarditis-Viren 291

The Persistence of the Latexagglutination-Inhibiting Antibodies in Rabbits Inoculated with Poliomyelitis-, Coxsackie-, Echo- and Encephalomyocarditis Viruses

No. 4

Kimura, A., Tosaka, K., Nakao, T.: Measles Rash. I. Light and Electron Microscopic Study of Skin Eruptions 295

Coria, M. F., McClurkin, A. W., Cutlip, R. C., Ritchie, A. E.: Isolation and Characterization of Bovine Adenovirus Type 5 Associated with "Weak Calf Syndrome" 309

Armitage, Aileen M. T., Cornwell, H. J. C., Wright, N. G., Weir, A. R.: Determination of the Buoyant Density of Canine Distemper Virus by Radioassay 319

Staple, R. F., Morrow, A. W., Fletton, B. W.: The Effect of Acetylethyleneimine upon a Strain of Inactivated Foot-and-Mouth Disease Virus Stored at 4 °C 331

Joo, H. S., Donaldson-Wood, C. R., Johnson, R. H.: A Microneutralization Test for the Assay of Porcine Parvovirus Antibody 337

Boorman, J., Mellor, P. S., Penn, M., Jennings, M.: The Growth of African Horse-Sickness Virus in Embryonated Hen Eggs and the Transmission of Virus by *Culicoides variipennis* Coquillett (Diptera, Ceratopogonidae) . . . 343

Mellor, P. S., Boorman, J., Jennings, M.: The Multiplication of African Horse-Sickness Virus in Two Species of *Culicoides* (Diptera, Ceratopogonidae) 351

Parker, J.: Inactivation of African Horse-Sickness Virus by Betapropiolactone and by pH 357

Tobita, K., Kilbourne, E. D.: Structural Polypeptides of Antigenically Distinct Strains of Influenza B Virus 367

Cappel, R.: Cell Mediated Immunity in Experimental Rubella Infections . . . 375

Mittelstaedt, R., Oppermann, H., Koch, G.: Poliovirus-Induced Infectious Double-Stranded RNA: Effect of RNA-Degrading Enzymes 381

Brief Reports

Lecatsas, G., Prozesky, O. W.: Excretion of Morphological Variants of Human Polyoma Virus 393

Shimizu, A., Nishimura, C., Kitaoka, M.: Origin of Heavy Hemagglutinin of Japanese Encephalitis Virus 399

Listed in Current Contents

Author Index

Alekberova, Z. S., Parfanovich, M. I., Nasonova, V. A., Zhdanov, V. M.: Molecular Pathogenesis of Systemic Lupus Erythematosus. 109.

Alexander, D. J. s. Watkins, Hilary.

Antonova, T. P. s. Chernos, V. I.

Arlinghaus, R. B. s. Loesch, W. T., Jr.

Armitage, Aileen M. T., Cornwell, H. J. C., Wright, N. G., Weir, A. R.: Determination of the Buoyant Density of Canine Distemper Virus by Radioassay. 319.

Bahnemann, H. G.: Binary Ethylenimine as an Inactivant for Foot-and-Mouth Disease Virus and Its Application for Vaccine Production. 47.

Barinsky, I. F., Dementiev, I. V., Shvetsova, T. P., Ugryumov, E. P., Ryabova, M. V., Bugbee, S. J., Sutnick, A. I., Millman, I., Blumberg, B. S.: Investigation of the Nature of Australia Antigen. I: The Absence of Biological Activity of Australia Antigen in Human Blood Leukocyte Culture. 193.

Bauer, K. s. Wittmann, G.

Blumberg, B. S. s. Barinsky, I. F.

Boorman, J., Mellor, P. S., Penn, M., Jennings, M.: The Growth of African Horse-Sickness Virus in Embryonated Hen Eggs and the Transmission of Virus by *Culicoides variipennis* Coquilett (Diptera, Ceratopogonidae). 343.

Boorman, J. s. Mellor, P. S.

Brade, H. s. Schmidt, W. A. K.

Brown, A., Officer, J. E.: An Attenuated Variant of Eastern Encephalitis Virus: Biological Properties and Protection Induced in Mice. 123.

Bucher-Nurminen, A. s. Haller, O.

Bugbee, S. J. s. Barinsky, I. F.

Bussell, R. H. s. Newlin, G. E.

Cappel, R.: Cell Mediated Immunity in Experimental Rubella Infections. 375.

Chernos, V. I., Vasilieva, N. N., Antonova, T. P., Surgay, V. V.: Study of the Antigenic and Immunogenic Properties of Neurovaccinia Virus TS Mutants. 80.

Coria, M. F., McClurkin, A. W., Cutlip, R. C., Ritchie, A. E.: Isolation and Characterization of Bovine Adenovirus Type 5 Associated with "Weak Calf Syndrome". 309.

Cornwell, H. J. C. s. Armitage, Aileen M. T.

Cutlip, R. C. s. Coria, M. F.

Dementiev, I. V. s. Barinsky, I. F.

Dierks, R. E. s. Smith, M. H.

Dietzschold, B. s. Wittmann, G.

Diwan, A. R. s. Falkler, W. A., Jr.

Donaldson-Wood, C. R. s. Joo, H. S.

Donaldson-Wood, C. s. Love, Daria N.

Falkler, W. A., Jr., Diwan, A. R., Halstead, S. B.: A Lipid Inhibitor of Dengue Virus in Human Colostrum and Mill; with a Note on the Absence of Anti-Dengue Secretory Antibody. 3.

Fletton, B. W. s. Staple, R. F.

Freitag, R. s. Zalan, E.

Frey, M. L. s. Smith, M. H.

Gauntt, C. J. s. Griffith, M. M.

Goto, Y. s. Kurogi, H.

Greig, A.: The Use of a Microtitration Technique for the Routine Assay of African Swine Fever Virus. (Brief Report) 287.

Gribkova, Natalia V. s. Sklyanskaya, Elena.

Griffith, M. M., Gauntt, C. J.: Rhinovirus Type 14 RNA Polymerase Complexes. 11.

Haller, O., Bucher-Nurminen, A., Lindenmann, J.: Early Events in Myxovirus Replication: Immunofluorescent Spots. 269.

Halstead, S. B. s. Falkler, W. A., Jr.

Hashimoto, Mitsue s. Yoshino, K.

Inaba, Y. s. Kurogi, H.

Jennings, M. s. Boorman, J.

Jennings, M. s. Mellor, P. S.

Johnson, R. H. s. Joo, H. S.

Joo, H. S., Donaldson-Wood, C. R., Johnson, R. H.: A Microneutralization Test for the Assay of Porcine Parvovirus Antibody. 337.

Jung, M., Krech, U., Price, P. C., Pyndiah, M. N.: Evidence of Chronic Persistent Infections with Polyomaviruses (BK Type) in Renal Transplant Recipients. 39.

Kaverin, N. V. s. Sklyanskaya, Elena.

Kilbourne, E. D. s. Tobita, K.

Kimura, A., Tosaka, K., Nakao, T.: Measles Rash. I. Light and Electron Microscopic Study of Skin Eruptions. 295.

Kishie, Taka. s. Yoshino, K.

Kitaoka, M. s. Shimizu, A.

Klein, Magdalena s. Schmidt, W. A. K.

Koch, G. s. Mittelstaedt, R.

Kos, Kathleen, A., Shapiro, D., Vaituzis, Z., Russell, Ph. K.: Viral Polypeptide Composition of Japanese Encephalitis Virus Infected Cell Membranes. 217.

Krech, U. s. Jung, M.

Kurogi, H., Inaba, Y., Goto, Y., Miura, Y., Takahashi, H., Sato, K., Omori, T., Matumoto, M.: Serologic Evidence for Etio-

logic Role of Akabane Virus in Epizootic Abortion - Arthrogryposis - Hydranencephaly in Cattle in Japan, 1972—1974. 71.
Kutinová, L.: Growth of SV40, Adeno 7 and SV40-Adeno 7 Viruses in Monkey and Human Cells at 29° adn 37° C. 257.

Lecatsas, G., Prozesky, O. W.: Excretion of Morphological Variants of Human Polyoma Virus. (Brief Report) 393.
Lindenmann, J. s. Haller, O.
Lipkind, M. A. s. Sklyanskaya, Elena.
Loesch, W. T., Jr., Arlinghaus, R. B.: Stable Polypeptides Associated with the 250 S Mengovirus-Induced RNA Polymerase Structure. 201.
Lomniczi, B.: Thermostability of Newcastle Disease Virus Strains of Different Virulence. 249.
Love, Daria, N., Donaldson-Wood, C.: Replication of a Strain of Feline Calicivirus in Organ Culture. 167.
Lubiniecki, A. S.: Replication of Eastern Equine Encephalitis Viruses (New Jersey and Louisiana Strains and the Ets-4 Mutant) in Rabbit Kidney Cells. 21.

Matumoto, M. s. Kurogi, H.
McClurkin, A. W. s. Coria, M. F.
McVicar, J. W. s. Sutmoller, P.
Mellor, P. S., Boorman, J., Jennings, M.: The Multiplication of African Horse-Sickness Virus in Two Species of *Culicoides* (Diptera, Ceratopogonidae). 351.
Mellor, P. S. s. Boorman, J.
Millman, I. s. Barinsky, I. F.
Mittelstaedt, R., Oppermann, H., Koch, G.: Poliovirus-Induced Infectious Double-Stranded RNA: Effect of RNA-Degrading Enzymes. 381.
Miura, Y. s. Kurogi, H.
Morrow, A. W. s. Staple, R. F.

Nakao, T. s. Kimura, A.
Nasonova, V. A. s. Alekberova, Z. S.
Newlin, G. E., Bussell, R. H.: Characterization of Inactivation of Myxoviruses and Paramyxoviruses by Hydroxylamine, N-Methylhydroxylamine and O-Methylhydroxylamine. 97.
Nishimura, C., Tobe, T.: Antigenic Specificity of S.M.O.N. Virus by Indirect Immuno-Fluorescent Test. (Brief Report) 85.
Nishimura, C. s. Shimizu, A.

Officer, J. E. s. Brown, A.
Omori, T. s. Kurogi, H.
Oppermann, H. s. Mittelstaedt, R.

Parfanovich, M. I. s. Alekberova, Z. S.
Parker, J.: Inactivation of African Horse-Sickness Virus by Betapropiolactone and pH. 357.
Penn, M. s. Boorman, J.
Potter, C. W. s. Ruben, F. L.
Price, P. C. s. Jung, M.
Prozesky, O. W. s. Lecatsas, G.
Pyndiah, M. N. s. Jung, M.

Reeve, P. s. Watkins, Hilary.
Richard-Molard, Christine: Isolement de lignées cellulaires de *Drosophila melanogaster* de différents genotypes et étude de la multiplication de deux variants du rhabdovirus sigma dans ces lignées. — Isolation of *Drosophila melanogaster* Cell-Lines of Different Genotypes and Study of Multiplication of Two Variants of Sigma Rhabdovirus in Those Lines. 139.
Ritchie, A. E. s. Coria, M. F.
Ruben, F. L., Potter, C. W., Stuart-Harris, C. H.: Humoral and Secretory Antibody Responses to Immunization with Low and High Dosage Split Influenza Virus Vaccine. 157.
Russell, Ph. K. s. Kos, Kathleen A.
Ryabova, M. V. s. Barinsky, I. F.

Sato, K. s. Kurogi, H.
Schmidt, W. A. K., Brade, H., Klein, Magdalena: Die Persistenz latexagglutinationshemmender Antikörper im Kaninchen nach Applikation von Poliomyelitis-, Coxsackie-, Echo- und Enzephalomyokarditis-Viren. (Kurze Mitteilung) 291.
Shapiro, D. s. Kos, Kathleen A.
Shimizu, A., Nishimura, C., Kitaoka, M.: Origin of Heavy Hemagglutinin of Japanese Encephalitis Virus. (Brief Report) 399.
Shvetsova, T. P. s. Barinsky, I. F.
Sklyanskaya, Elena I., Kaverin, N. V., Gribkova, Natalia V., Tsvetkova Inna V., Lipkind, M. A.: Strain-Specific Degradation of a Viral Glycoprotein in Newcastle Disease Virus-Infected Cells. 147.
Smith, M. H., Frey, M. L., Diercks, R. E.: Isolation, Characterization and Pathogenicity Studies of a Bovine Respiratory Syncytial Virus. 237.
Staple, R. F., Morrow, A. W., Fletton, B. W.: The Effect of Acetyletyleneimine upon a Strain of Inactivated Foot-and-Mouth Disease Virus Stored at 4° C. 331.
Stuart-Harris, C. H. s. Ruben, F. L.
Surgay, V. V. s. Chernos, V. I.
Sutmoller, P., McVicar, J. W.: The Influence of Age of Cell Cultures on the Production of Foot-and-Mouth Disease Antigen. (Brief Report) 187.

Sutnick, A. I. s. Barinsky, I. F.
Takahashi, H. s. Kurogi, H.
Tobe, T. s. Nishimura, C.
Tobita, K., Kilbourne, E. D.: Structural Polypeptides of Antigenically Distinct Strains of Influenza B Virus. 367.
Tosaka, K. s. Kimura, A.
Tsvetkova, Inna V. s. Sklyanskaya, Elena.
Ugryumov, E. P. s. Barinsky, I. F.
Vaituzis, Z. s. Kos, Kathleen A.
Vasilieva, N. N. s. Chernos, V. I.
Watkins, Hilary, Reeve, P., Alexander, D. J.: The Ribonucleic Acid of Infectious Bronchitis Virus. 279.
Weir, A. R. s. Armitage, Aileen M. T.
Weisman, Pnina s. Zylber-Katz, Ester.
Wiesendanger, W. s. Wyler, R.
Wilson, C. s. Zalan, E.
Wittmann, G., Dietzschold, B., Bauer, K.: Some Investigations on the Adjuvant Mechanism of DEAE Dextran. 225.
Wright, N. G. s. Armitage, Aileen, M. T.
Wyler, R., Wiesendanger, W.: The Enhancing Effect of Copper, Nickel, and Cobalt Ions on Plaque Formation by Semliki Forest Virus (SFV) in Chicken Embryo Fibroblasts. 57.
Yanagi, K. s. Yoshino, K.
Yoshino, K., Kishie, Taka, Hashimoto, Mitsue, Yanagi, K.: Effect of Alkaline Maintenance Medium upon the Growth of Rabies Virus in Chick Embryo Cells. 31.
Zalan, E., Wilson, C., Freitag, R.: The Role of Hemagglutination in the Inhibition of Neuraminidase Activity of Influenza Virus by Concanavalin A. (Brief Report) 177.
Zhdanov, V. M. s. Alekberova, Z. S.
Zylber-Katz, Ester, Weismann, Pnina: Effects on Host Cell Polyribosomes Following Infection with Frog Virus 3 at a Non-Permissive Temperature. (Brief Report) 181.